

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Subbarao Surampudi, et al. Art Unit: 1745
Serial No.: 10/797,625 Examiner: S. Kalafut
Filed : March 9, 2004
Title : DIRECT METHANOL FEED FUEL CELL AND SYSTEM

MAIL STOP RCE

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Applicants call attention to the attached Information Disclosure Statement and documents listed on form PTO-1449.

This filing is being made with a Request for Continued Examination (RCE). No fee is required.

The documents are in the English language; hence no concise explanation is necessary per Rule 98(a)(3).

Consideration of the foregoing and enclosures plus the return of a copy of the enclosed form PTO-1449 with the Examiner's initials in the left column per MPEP 609 are earnestly solicited along with an early action on the merits.

Please apply any credits or additional charges to deposit account 06-1050.

Respectfully submitted,

Date: August 20, 2007

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Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 06816-023009	Application No. 10/797,625
Information Disclosure Statement by Applicant (Use several sheets if necessary)		Applicant Subbarao Surampudi, et al.	
		Filing Date March 9, 2004	Group Art Unit 1745

(37 CFR §1.98(b))

U.S. Patent Documents

Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	AA	2002/0015872	02/2002	Surampudi et al.			
	AB	2002/0015868	02/2002	Surampudi et al.			
	AC	3,013,098	12/1961	Hunger et al.			
	AD	3,013,908	12/1961	Luck et al.			
	AE	3,113,049	12/1963	Worsham			
	AF	3,143,440	08/1964	Hunger et al.			
	AG	3,368,922	02/1968	Salyer			
	AH	3,425,873	02/1969	Worsham et al.			
	AI	3,442,715	05/1969	Dai Yee et al.			
	AJ	3,511,713	05/1970	Warzawski			
	AK	3,532,556	10/1970	Steele			
	AL	3,542,597	11/1970	Smith et al.			
	AM	3,634,140	01/1972	Von Krusenstierna			
	AN	3,811,817	05/1974	Mansnerus et al.			
	AO	3,899,354	08/1975	Kordesch			
	AP	3,992,223	11/1976	Gutbier			
	AQ	3,993,985	11/1976	Chopard et al.			
	AR	4,125,676	11/1978	Maricle et al.			
	AS	4,130,484	12/1978	Marwil et al.			
	AT	4,160,856	07/1979	Warszawski			
	AU	4,175,165	11/1979	Adlhart			
	AV	4,214,969	07/1980	Lawrance			
	AW	4,262,063	04/1981	Kudo et al.			
	AX	4,350,608	09/1982	Gestaut			
	AY	4,365,008	12/1982	DeCasperis et al.			
	AZ	4,390,603	06/1983	Kawana et al.			
	BA	4,395,322	07/1983	Harris			

Examiner Signature	Date Considered
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

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	BB	4,407,905	10/1983	Takeuchi et al.			
	BC	4,420,544	12/1983	Lawson et al.			
	BD	4,478,917	10/1984	Fujita et al.			
	BE	4,490,219	12/1984	Bindra et al.			
	BF	4,493,878	01/1985	Horiba et al.			
	BG	4,526,843	07/1985	Kaufman et al.			
	BH	4,537,840	08/1985	Tsukui et al.			
	BI	4,541,905	09/1985	Kuwana et al.			
	BJ	4,562,123	12/1985	Shimizu et al.			
	BK	4,588,661	05/1986	Kaufman et al.			
	BL	4,595,642	06/1986	Nakanishi et al.			
	BM	4,612,261	09/1986	Tsukui et al.			
	BN	4,629,664	12/1986	Tsukui et al.			
	BO	4,644,751	02/1987	Hsu			
	BP	4,728,533	03/1988	Feigenbaum et al.			
	BQ	4,738,903	04/1988	Garow et al.			
	BR	4,745,953	05/1988	Kobayashi et al.			
	BS	4,766,043	08/1988	Shirogami et al.			
	BT	4,810,597	03/1989	Kumagai et al.			
	BU	4,824,736	04/1989	Ehrig et al.			
	BV	4,824,739	04/1989	Breault et al.			
	BW	4,826,741	05/1989	Aldhart et al.			
	BX	4,855,193	08/1989	McElroy			
	BY	4,865,925	09/1989	Ludwig et al.			
	BZ	4,868,073	09/1989	Hashimoto et al.			
	CA	4,876,115	10/1989	Raistrick			
	CB	4,931,168	06/1990	Watanabe et al.			

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	CC	4,961,918	10/1990	Norell et al.			
	CD	5,004,424	04/1991	Larminie			
	CE	5,013,618	05/1991	Luczak			
	CF	5,019,263	05/1991	Haag et al.			
	CG	5,132,193	07/1992	Reddy et al.			
	CH	5,162,166	11/1992	Ellgen			
	CI	5,170,124	12/1992	Blair et al.			
	CJ	5,186,877	02/1993	Watanabe			
	CK	5,211,984	05/1993	Wilson			
	CL	5,225,391	07/1993	Stonchart et al.			
	CM	5,234,776	08/1993	Koseki			
	CN	5,236,687	08/1993	Fukuda et al.			
	CO	5,250,184	10/1993	Maier			
	CP	5,252,410	10/1993	Wilkinson et al.			
	CQ	5,294,232	03/1994	Sakairi et al.			
	CR	5,294,580	03/1994	Dufner			
	CS	5,318,863	06/1994	Dhar			
	CT	5,330,860	07/1994	Grot et al.			
	CU	5,335,628	08/1994	Dunbar			
	CV	5,366,821	11/1994	Merritt et al.			
	CW	5,401,589	03/1995	Palmer et al.			
	CX	5,415,888	05/1995	Banerjee et al.			
	CY	5,431,789	07/1995	Huber et al.			
	CZ	5,436,086	07/1995	Seymour et al.			
	DA	5,453,332	09/1995	Sakairi et al.			
	DB	5,482,792	01/1996	Faita et al.			
	DC	5,550,478	08/1996	Kopera			

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	DD	5,561,000	10/1996	Dirven et al.			
	DE	5,573,866	11/1996	Van Dine et al.			
	DF	5,598,088	01/1997	Richter			
	DG	5,603,830	02/1997	Everhart et al.			
	DH	5,641,586	06/1997	Wilson			
	DI	5,658,682	08/1997	Usuda et al.			
	DJ	5,679,248	10/1997	Blaney			
	DK	5,698,089	12/1997	Lewis et al.			
	DL	5,702,755	12/1997	Mussell			
	DM	5,733,437	03/1998	Baker et al.			
	DN	5,766,786	06/1998	Fleck et al.			
	DO	5,814,995	09/1998	Tasdighi			
	DP	5,858,569	01/1999	Meacher et al.			
	DQ	5,916,505	06/1999	Cisar et al.			
	DR	5,928,807	07/1999	Elias			
	DS	5,935,431	08/1999	Korin			
	DT	6,248,460	06/2001	Surampudi et al.			
	DU	6,258,476	07/2001	Cipollini			
	DV	6,699,021	03/2004	McNamee et al.			
	DW	6,740,434	05/2004	Surampudi et al.			
	DX	6,821,659	11/2004	Surampudi et al.			

Other Documents (include Author, Title, Date, and Place of Publication)

Examiner Initial	Desig. ID	Document
	DY	Abens, S., et al., "Methanol Fuel Cell Power Source", <i>Conf. Proc. Intelec. '85 Seventh International Telecommunications Energy Conf.</i> , Oct. 14-17, 1985, Munich, West Germany, pp. 167-174, abstract only.
	DZ	Abens, S., et al., "Neat Methanol Fuel Cell Power Plant", <i>Proc. of the 20th Intersociety Energy Conversion Engineering Conf.</i> , Vol. 2, pp. 191-196 (1985), abstract only.

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	EA	Ahlers, C., et al., "Fabrication of Zeolite-Modified Electrodes via Electrophoretic Deposition", <i>Journal of The Electrochemical Society</i> , 146(9):3259-3263, (1999).
	EB	Cathro, K.J., et al., "Fuel Control in Methanol-Air and Formaldehyde-Air Fuel Cell Systems", <i>J. Electrochem. Soc.</i> , 118(9):1523-1529, September 1971.
	EC	Kawashima, A., et al., "Surface-Activated Amorphous Alloy Fuel Electrodes for Methanol Fuel Cell", Science Reports of the Research Institutes, Tohoku University, Japan, Series A: Physics, Chemistry, and Metallurgy, 31(1):174-182.
	ED	Kosek et al., "A Direct Methanol Oxidation Fuel Cell", Proceeding of the 28th Intersociety Energy Conversion Engineering Conference, Vol. 1, pp. 1.1209 - 1.1214, Atlanta, 1993.
	EE	Narayanan et al., "Studies on the electro-oxidation of methanol and formaldehyde at carbon-supported platinum and platinum alloy electrodes", <i>The Electrochemical Society Fall Meeting</i> , Abstract No. 53, 92(2):78-79, October 1992.
	EF	Narayanan, et al., "Implications of Fuel Crossover in Direct Methanol Fuel Cells", <i>The Electrochemical Society Fall Meeting</i> , Abstract No. 73, Vol. 93(2):126-127, October 1993.
	EG	Poltarzewski, et al., "Nafion distribution in gas diffusion electrodes for solid-polymer-electrolyte-fuel-cell applications", <i>Journal of Electrochemical Society</i> , 139(3):761-765, March 1992.
	EH	Saito, et al., "Liquid Fuel Permeation Through Membrane in Ion-Exchange Membrane Type Liquid Fuel Cell", <i>Journal of The Electrochemical Society of Japan</i> , 59(1):70-73, (1991).
	EI	Shukla, A.K., et al., "A Nafion-bound platinumized carbon electrode for oxygen reduction in solid polymer electrolyte cells", <i>Journal of Applied Electrochemistry</i> , 19 (1989) 383-386.
	EJ	Si, Y., et al., "Nafion-Teflon-Zr(HPO ₃) ₂ Composite Membranes for High-Temperature PEMFCs", <i>Journal of The Electrochemical Society</i> , 151(4):A623-A631, (2004).
	EK	Skerrett, P.J., "Fuel Cell Update", <i>Popular Science</i> , 242(6):88-91 & 120-121, June 1993.
	EL	Surampudi et al., "Advances in direct oxidation methanol fuel cells," <i>Journal of Power Sources</i> , 47(3):377-385, January 1994.
	EM	Takahashi, T., "The Solid Electrolytes for Fuel Cells", <i>Denki Kagaku</i> , 55(3):190-194, (1987), abstract only.
	EN	Takeuchi, K., et al., "A Capacitance Sensor for Methanol Ratio Measurement of Blended Gasoline", <i>International Conference on Automotive Electronics</i> , London, GB, pp. 24-28, 1991.
	EO	Tsukui, et al., "Study on Methanol Fuel Cell With Hydrocarbon High-Molecular Polymer Electrolyte", <i>Journal of The Electrochemical Society of Japan</i> , 59(1):52-58, (1991), translation included.
	EP	Tsukui, T., et al., "Study on Fuel Supplying Method and Methanol Concentration Sensor for the High Efficient Operation of Methanol Fuel Cells", <i>Transactions of the Institute of Electrical Engineers of Japan, Part B</i> , 110-B(1):67-76, Jan. 1990, abstract only.
	EQ	Watanabe et al., "Applications of the Gas Diffusion Electrode to a Backward Feed and Exhaust (BFE) Type Methanol Anode", <i>J. Electroanal. Chem.</i> , Vol. 199, pp. 311-322, (1986).
	ER	Watanabe, et al., "The Use of Thin Films of Sulphonated Fluoro-Polymers for Improvements in the Activity and Durability of Pt Electrocatlysts for Methanol Electrooxidation", <i>J. Electroanal. Chem.</i> , Vol. 284, pp. 511-515, (1990).

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